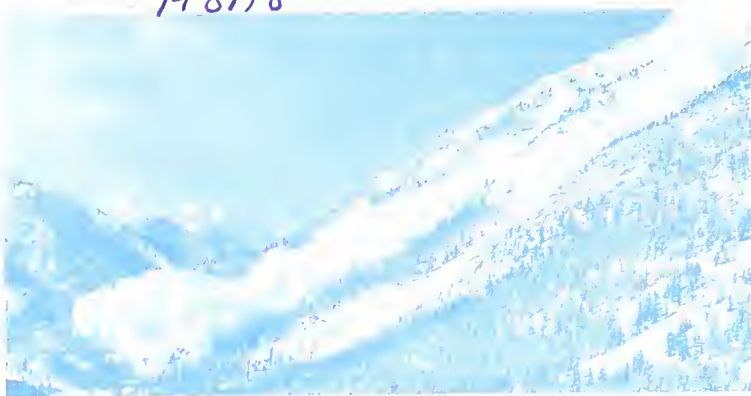


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# Avalanche Notes

U.S. Forest Service  
Westwide Avalanche Network

FEBRUARY 95

## Weather

Colorado seldom sees storms of the size and intensity that strike the Cascades, Sierra, or Wasatch. But from February 9th-15th such a storm hit the Colorado Rockies, and in those 7 days, 4-6 feet of snow fell at most sites, while Crested Butte got 7 feet and Gothic, 8 feet. In central and northern Colorado, this storm triggered the largest avalanche cycle of record, with more and larger avalanches than ever previously recorded. More on this later.

Alyeska, AK, recorded 54" of snow on the 20th-22nd, and received 105% of normal for February -- the fourth consecutive month of above-normal snows. Alyeska remains on track to set a seasonal snowfall record.

Snowfall was well below normal at all sites along the West Coast. In the Cascades of Washington, only one storm hit: on the 15th-18th, 31-40" of snow fell. Stevens Pass and Mt. Rainier totalled 58% of normal for the month, while Crystal Mtn. got 88%. Mt. Hood Meadows, OR, got 52" of snow on the 15th-18th and finished the month with 86% of normal.

The Sierra of California was even drier, which may have been a welcome respite from the storms of December and January. All sites got only 1 or 2 days of measurable snow, and Alpine Meadows recorded but 25% of normal February snowfall, and Mammoth Mtn., 23%.

In the Intermountain area, the Wasatch of Utah saw only one storm in February: on the 9th-14th, Alta received 50", and Snowbird, 47". These areas wound up with 71% and 62% of normal, respectively. In Montana, Big Mtn. got 85% of normal; Big Sky, 54%; and Bridger Bowl, 48%. Sun Valley, ID got 78%.

In Colorado, all sites received above-normal snows (except Wolf Creek) and for many sites virtually all the month's snow came in the epic storm of the 9th-15th. The following is a list of sites from north to south with percent of monthly normal snowfall and (9th-15th storm total): Steamboat, 105% (48.5"); Winter Park, 148% (54"); A Basin, 200% (53"); Breckenridge, 165% (57"); Copper Mtn., 200% (51"); Vail, 142% (65"); Beaver Creek, 200% (82.5"); Aspen Mtn., 185% (65.5"); Aspen Highlands, 185% (66.5"); Gothic, 176% (94.5"); Crested Butte, 240% (86"); Monarch, 120% (47.5"); Red Mtn. Pass, 103% (44"); Telluride, 120% (45.5"); and Wolf Creek, 95% (54"). Taos, NM, recorded all of its monthly snowfall on the 9th-16th and got 107% of normal.

## Avalanche

In February, 35 avalanche incidents were reported. These resulted in 44 people caught, 10 partly buried, 13 buried, 5 injured, and 6 killed. In addition, 44 vehicles were caught or damaged, as were 9 buildings and 1 train. Property losses are estimated at \$500,000 to \$1 million. Here's a regional rundown of the significant accidents:

### Alaska

On the 5th at Wasilla, a 4-year-old boy was totally buried for 15 minutes by a roof avalanche. He was rescued unhurt. Also on the 5th at Willow, an 8-year-old boy was totally buried and his 5-year-old sister was partly buried. They were rescued unharmed.

On the 20th on Crown Mt. on Kodiak Island, two snowmobilers were buried by an avalanche after their machines had gotten stuck. Rescuers probed with tree branches and found one man 4 feet deep after 1-1/2 hours. He was injured but alive. The second man was later found dead under 4-7 feet of snow.

On the 21st on the Seward Highway, two tractor-trailer trucks were heavily damaged when one was hit by an avalanche and the other ran into the debris.

On the 23rd at Whittier, a roof avalanche hit a storage-tank valve and caused a 100,000-gallon oil spill.

On the 24th on Douglas Island near Juneau, a backcountry skier triggered an avalanche and was carried 1,600 feet vertical. He was severely injured and bled to death. This was the second fatal avalanche in Alaska this month.

### Utah

On the 12th in Big Cottonwood Canyon, three backcountry skiers were hit by an avalanche that buried two to their necks and totally buried the third. Another ski party heard cries for help and made the rescue. One of the partly-buried victims had suffered a badly broken leg. A beacon search led to the recovery of the final victim, a 37-year-old man who had died either from suffocation or trauma. He had been buried about 40 minutes under 2 feet of snow. This was the fifth avalanche death in Utah this winter.

### Colorado

On the 3rd at Berthoud Pass, 10 snowboarders were caught, 5 buried, and 1 injured when they triggered a large avalanche prior to a film shoot. Too bad the camera was not running.

On the 12th near Loveland Pass, two ski tourers triggered an avalanche that totally buried one, a 45-year-old woman. Her companion was partly buried, and the avalanche had ripped the skis off his feet and the shovel off his pack. Using his beacon, he located the buried victim and dug her out with his hands, but she was dead from suffocation. She had been buried 2-1/2 feet deep for 20 minutes.

On the 12th at Crested Butte, a condo was damaged by a natural release.

On the 14th in the Crested Butte area, a second condo was hit and sustained major structural damage; an avalanche buried and demolished at least 40 parked snowmobiles; an avalanche destroyed a newly-built, expensive summer home about 8 miles from town; and a huge avalanche near Gothic deposited 1 million cubic meters of snow at the valley floor (measured by Art Mears).

On the 14th on Tennessee Pass, an avalanche hit a train and knocked two boxcars off the tracks.

On the 14th in the Aspen area, an avalanche destroyed the outhouse at the Maroon Bells parking lot; an avalanche buried and damaged the Mace Hut near Ashcroft; and an avalanche in Conundrum Creek buried and destroyed a teepee home and killed the occupant, a 25-year-old man.

On the 15th, an avalanche at Homestake Reservoir near Vail destroyed a 20x40-foot building and damaged the valve and pump system inside.

On the 25th at Urad Mine near Berthoud Pass, a 35-year-old snowmobiler was buried when he triggered a hard-slab avalanche. His wife searched and found only his partly-buried machine. She contacted two skiers, one of whom helped to search while the other went for help. About 4 hours after the avalanche, a rescuer spied a gloved hand barely visible between the blocks of hard slab. The victim was uncovered, dead from injuries, about 15 feet above his snowmobile. This was the seventh avalanche death in Colorado this winter.

Through February, 101 avalanche accidents have been reported, resulting in 131 people caught, 51 partly buried, 27 buried, 21 injured, and 17 killed. Also, 50 vehicles (including snowmobiles), 11 buildings, and a train have been damaged, with a total estimated loss of \$650,000 to \$1 million.



U.S. FOREST SERVICE  
WESTWIDE WEATHER AND AVALANCHE NETWORK  
FORT COLLINS, COLORADO

FEBRUARY 1995  
SUMMARY OF WEATHER AND SNOW CONDITIONS

AREA	SNOWFALL			WATER EQUIVALENT								SNOW DEPTH				TEMPERATURE			WIND SPEED AND DIRECTION						
	TOTAL SNOW- FALL IN.	MAX IN DEN	D A E	TOTAL WATER IN.	MAX IN.	D T E	NUMBER OF DAYS				D A MAX	T MIN IN.	AVG IN.	MEAN MAX DEGREES F	MEAN MIN DEGREES F	AVG DEGREES F	AVG FOR MO. MPH	6 HOUR		FASTEST HOUR MPH	D A T E				
							GE	GE	GE	GE								PERIODS	GE						
																						15	20		
CENTRAL AND SOUTHERN ROCKY MOUNTAINS																									
ARAPAHOE BASIN, COLO	79.1	.07	11	12	5.80	1.25	11	13	7	5	2	75	15	43	57	29.8	9.5	19.6	14.4M	47M	23M	51	290	17	
ASPEN HIGHLANDS, CO	70.2	.08	17	13	5.92	1.35	15	8	7	4	4	82	15	42	56	34.5	17.1	25.8	12.1	37	15	33	300	2	
ASPEN MOUNTAIN, COLO	70.6	.09	16	13	6.03	1.20	13	9	7	5	4	82	15	0	58	33.8	16.2	25.0	6.9	5	1	27	260	2	
BEAR LAKE, RMNP, CO	48.0	.08	8	11	3.85	.60	11	12	11	3	0	52	15	29	39	30.0M	20.1M	25.0M	--	--	--	--	--	--	
BEAVER CREEK, COLO	98.0	.07	25	12	7.06	2.30	12	11	8	5	2	85	15	45	62	26.6	14.7	20.7	8.2	4	0	21	280	2	
BRECKENRIDGE, COLO	68.6	.08	15	12	5.17	1.20	12	10	10	4	2	71	15	36	51	22.4M	10.4	16.4M	15.0M	54M	23M	33	210	2	
COPPER MTN, COLO	71.0	.06	15	12	4.38	1.05	12	12	6	4	1	--	--	--	--	28.5	10.9	19.7	19.0M	71M	50M	58	240	14	
CRESTED BUTTE, COLO	89.0																								
ELDORA, COLO	63.5	--	18	11	--	--	--	--	--	--	--	47	13	19	29	35.0M	10.7M	22.9M	--	--	--	--	--	--	
GOthic, COLO	104.5	.07	24	12	7.82	1.76	12	8	8	6	4	90	14	46	66	35.8	12.8	24.3	--	--	--	--	--	--	
KEYSTONE, COLO	65.3	--	13	13	--	--	--	--	--	--	--	63	15	34	47	30.1	12.9	21.5	10.4	18	7	--	--	--	
MONARCH, COLO	49.2	.07	20	12	3.38	1.30	12	5	5	2	1	71	14	36	53	32.9	15.5	24.2	--	--	--	--	--	--	
PURGATORY, COLO	42.3	.08	12	12	3.38	1.00	15	6	5	3	2	76	15	53	62	37.0	19.5	28.3	--	--	--	--	--	--	
RED MTN PASS U.S.550	49.0	.09	10	14	4.45	1.30	14	8	5	4	2	77	15	49	61	28.5M	10.4M	19.4M	--	--	--	--	--	--	
SKI COOPER, COLO	56.4	--	15	14	--	--	--	--	--	--	--	68	14	30	46	39.8M	8.8M	24.3M	--	--	--	--	--	--	
STEAMBOAT, COLORADO	57.0	.08	14	11	4.51	1.10	15	10	8	4	1	66	11	50	57	36.3	18.7	27.5	--	--	--	--	--	--	
TAOS, NEW MEXICO	40.0	.08	11	12	3.23	.80	12	7	4	4	0	101	15	75	88	32.6	18.9	25.8	6.3M	9M	1M	27	250	13	
TELLURIDE, COLO	49.5	.08	11	14	3.75	1.00	14	9	6	2	1	68	15	51	57	28.2	15.8	22.0	8.5M	11M	5M	29	250	14	
VAIL, COLO	79.2	.08	21	12	6.13	1.30	15	11	7	4	3	78	15	42	59	29.9	14.8	22.4	8.0M	1M	1M	--	--	--	
WINTER PARK S.A., CO	76.4	.08	18	11	5.76	1.50	11	10	7	5	1	80	15	48	63	29.3	14.6	22.0	9.9	22	8	33	290	2	
WOLF CREEK, COLO	55.1	.13	15	15	7.08	2.70	15	8	6	4	3	120	15	79	97	37.1	15.8	26.5	12.5	31	10	40	220	14	
INTERMOUNTAIN																									
ALTA, UTAH	56.5	.10	20	14	5.98	3.15	14	--	--	--	--	143	14	107	121	41.0	17.0	29.0	11.5	22	11	34	290	14	
BIG SKY, MONT	23.5	--	8	10	--	--	--	--	--	--	--	61	10	53	55	29.9	15.6	22.8	--	--	--	--	--	--	
BIG MOUNTAIN, MONT	46.0	--	8	16	--	--	--	--	--	--	--	103	19	84	91	27.3	14.3	20.8	--	--	--	--	--	--	
BRIDGER BOWL, MONT	22.1	.08	6	14	2.03	.85	2	6	3	1	0	85	14	71	77	32.5M	15.1M	23.8M	15.3	75	25	33	90	12	
SCHWEITZER BASIN, ID	29.0	--	13	17	--	--	--	--	--	--	--	102	17	90	94	30.1M	18.4M	24.2M	--	--	--	--	--	--	
SNOW BIRD, UTAH	48.2	.11			5.50																				
SUN VALLEY, IDAHO	27.0	.09	7	13	2.54	.63	1	6	5	3	0	77	18	68	72	37.2	18.1	27.7	12.2	32	12	39	180	14	
WOLF MTN., UTAH	35.2	.08	10	12	3.04	.75	15	8	6	2	0	70	15	47	55	36.9	25.1	31.0	7.0	4	1	34	280	2	
WEST COAST																									
ALPENTAL, WASH	43.1	.10	14	17	7.23	2.61	1	8	5	5	2	116	17	93	98	34.5M	23.5M	29.0M	15.9M	59M	32M	54	250	1	
ALPINE MEADOWS, CAL	18.0	.11	16	14	2.19	1.80	14	3	2	1	1	120	14	106	110	45.7	29.2	37.4	19.7	76	46	75	230	12	
ALYESKA, ALASKA	88.2	.07	31	21	9.96	2.58	6	11	11	6	3	157	21	126	135	27.4	17.2	22.3	5.0	4	0	21	120	4	
CRYSTAL MTN 1, WASH	47.0	.10	11	16	8.21	1.98	19	11	9	6	3	89	17	68	73	40.1	24.1	32.1	17.0	67	45	51	230	20	
CRYSTAL MTN 2, WASH	45.2	.10	11	16	7.70	1.98	19	9	8	7	3	105	17	88	93	34.9	22.0	28.4	--	--	--	--	--	--	
EAGLECREST, ALASKA	35.5	.09	7	19	3.48	.75	20	8	8	3	0	137	25	122	127	27.1M	17.4M	22.3M	--	--	--	--	--	--	
HEAVENLY VALLEY, CAL	8.0	--	8	14	--	--	--	--	--	--	--	80	14	66	72	43.2	21.5	32.4	--	--	--	--	--	--	
JUNE MOUNTAIN, CALIF	22.0	.07	16	14	1.50	1.00	14	4	3	1	1	110	14	97	100	45.7	23.0	34.4	--	--	--	--	--	--	
MAMMOTH MTN, CALIF	14.5	.16	14	14	2.39	2.34	14	1	1	1	1	108	14	90	97	43.9	19.8	31.8	--	--	--	--	--	--	
MT. RAINIER PARADISE	60.1	.11	19	17	13.29	3.75	19	11	11	8	5	172	18	138	146	39.3	25.7	32.5	5.3M	5M	4M	--	--	--	
MT. HOOD MDWS, ORE.	72.3	.10	20	18	14.01	2.60	1	11	11	10	6	132	18	90	101	44.2	27.9	36.0	14.7	53	40	40	80	7	
SNOQUALMIE PASS I-90	45.5	.12	14	17	11.95	4.44	19	9	8	7	3	102	17	76	84	43.2	25.0	34.1	6.3	2	0	16	120	12	
SQUAW VALLEY, CALIF	23.2	.10	19	14	2.57	1.86	14	3	2	2	1	203	14	181	187	44.3	29.1	36.7	19.5	60	40	84	240	13	
STEVENS PASS 5E WASH	46.0	--	14	17	--	--	--	--	--	--	--	110	17	85	93	37.3	26.8	32.0	8.9M	22M	9M	60	90	12	
STEVENS PASS, WASH	45.2	.07	16	17	9.70	3.00	1	11	11	5	4	111	18	84	90	36.0M	25.4	30.7M	12.2M	38M	12M	--	--	--	
SUGAR BOWL, CALIF	24.0	--	15	14	--	--	--	--	--	--	--	205	14	183	191	43.7	23.6	33.6	12.1	44	16	50	310	13	

-- DATA INCOMPLETE OR MISSING

M-ONE OR MORE DAYS OF RECORD MISSING-IF AVERAGE VALUE IS ENTERED, LESS THAN 10 DAYS RECORD IS MISSING

IF M IS ENTERED IN WIND SPEED COLUMN, LESS THAN 37 6-HOUR PERIODS ARE MISSING

GE--GREATER THAN OR EQUAL TO



U.S. FOREST SERVICE  
WESTWIDE WEATHER AND AVALANCHE NETWORK  
FORT COLLINS, COLORADO

FEBRUARY 1995  
AVALANCHE SUMMARY

AREA	TOTAL	TOTAL	DATES OF		NUMBER OF DAYS WITH		TYPE OF AVALANCHE								FRACTURE LINE HEIGHTS IN FEET	VERTICAL DESCENT IN FEET				AVALS ACROSS MAJOR ACCESS ROADS NO.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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-- = DATA INCOMPLETE OR MISSING  
GE = GREATER THAN OR EQUAL TO  
+ = ALSO OCCURRED ON OTHER DATES